



Terms used

relaxation network round rounding Approximation algorithms for facility location problems searched out of 1,406.

Found 52 of

1,406

Sort results by


[Save results to a Binder](#)

Try an [Advanced Search](#)

Try this search in [The ACM Guide](#)

Display results


[Search Tips](#)
☐ Open results in a new window

Results 1 - 20 of 52

Result page: [1](#) [2](#) [3](#) [next](#)

Relevance scale ☐ ☐ ☐ ☐ ☐

u₁

1 [Approximation algorithms for metric facility location and k-Median problems using the primal-dual schema and Lagrangian relaxation](#)



Kamal Jain, Vijay V. Vazirani

March 2001 **Journal of the ACM (JACM)**, Volume 48 Issue 2

Publisher: ACM Press

Full text available:  [pdf\(170.38 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We present approximation algorithms for the metric uncapacitated facility location problem and the metric k-median problem achieving guarantees of 3 and 6 respectively. The distinguishing feature of our algorithms is their low running time: $O(m \log m)$ and $O(m \log(L + \log(n)))$ respectively, where n and m are the total number of vertices and edges in the und ...

Keywords: k-median problem, Lagrangian relaxation, approximation algorithms, facility location problem, linear programming

u₁


2 [Approximation algorithms for facility location problems \(extended abstract\)](#)



David B. Shmoys, Eva Tardos, Karen Aardal

May 1997 **Proceedings of the twenty-ninth annual ACM symposium on Theory of computing**

Publisher: ACM Press

Full text available:  [pdf\(1.52 MB\)](#)

Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

3 [Optimization: Facility location: distributed approximation](#)



Thomàs Moscibroda, Roger Wattenhofer

July 2005 **Proceedings of the twenty-fourth annual ACM SIGACT-SIGOPS symposium on Principles of distributed computing PODC '05**

Publisher: ACM Press

Full text available:  [pdf\(212.91 KB\)](#)

Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

In this paper, we initiate the study of the approximability of the facility location problem in a distributed setting. In particular, we explore a trade-off between the amount of communication and the resulting approximation ratio. We give a distributed algorithm that, for every constant k , achieves an $O($

☐ [Search Session History](#)

[BROWSE](#)

[SEARCH](#)

[IEEE XPLORE GUIDE](#)

[SUPPORT](#)

Wed, 7 Dec 2005, 4:51:15 PM EST

Edit an existing query or
compose a new query in the
Search Query Display.

Search Query Display

Select a search number (#)
to:

- Add a query to the Search Query Display
- Combine search queries using AND, OR, or NOT
- Delete a search
- Run a search

Recent Search Queries

		Results
<u>#1</u>	(relaxation <and> (round <or> rounding) <and> (network <near/1> topology)) <in> ab	0
<u>#2</u>	(relaxation <and> (round <or> rounding) <and> (network <near/1> topology)) <in> pdfdata	115
<u>#3</u>	(relaxation <and> (round <or> rounding) <and> (network <near/1> topology)) <in> pdfdata	115
<u>#4</u>	(relaxation <and> (round <or> rounding) <and> (network <near/1> topology)) <in> pdfdata	115
<u>#5</u>	((relaxation <and> (round <or> rounding)) <in> pdfdata) <and> ((network <near/1> topology) <in> pdfdata)	115
<u>#6</u>	((relaxation <and> (round <or> rounding)) <in> pdfdata) <and> ((network <near/1> topology) <in> pdfdata)	115



Terms used relaxation network round rounding

Found **5,931** of **167,655**

Sort results by

relevance



Save results to a Binder

Try an [Advanced Search](#)

Try this search in [The ACM Guide](#)

Display results

expanded form



Search Tips

☐ Open results in a new window

Results 1 - 20 of 200

Result page: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [next](#)

Best 200 shown

Relevance scale ☐ ☐ ☐ ☐ ☐

1 Design of logical topologies: a linear formulation for wavelength-routed optical networks with no wavelength changers

Rajesh M. Krishnaswamy, Kumar N. Sivarajan

April 2001 **IEEE/ACM Transactions on Networking (TON)**, Volume 9 Issue 2

Publisher: IEEE Press

Full text available:  pdf(257.34 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)
Keywords: all-optical networks, linear program, network planning, topology design

2 Routing and wavelength assignment in optical networks

Asuman E. Ozdaglar, Dimitri P. Bertsekas

April 2003 **IEEE/ACM Transactions on Networking (TON)**, Volume 11 Issue 2


Publisher: IEEE Press

Full text available:  pdf(507.86 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

The problem of routing and wavelength assignment (RWA) is critically important for increasing the efficiency of wavelength-routed all-optical networks. Given the physical network structure and the required connections, the RWA problem is to select a suitable path and wavelength among the many possible choices for each connection so that no two paths sharing a link are assigned the same wavelength. In work to date, this problem has been formulated as a difficult integer programming problem that d ...


Keywords: exact penalty functions, lightpath, linear programming, routing, wavelength assignment

3 Convex quadratic and semidefinite programming relaxations in scheduling

 Martin Skutella

March 2001 **Journal of the ACM (JACM)**, Volume 48 Issue 2

Publisher: ACM Press

Full text available:  pdf(374.96 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We consider the problem of scheduling unrelated parallel machines subject to release dates so as to minimize the total weighted completion time of jobs. The main contribution of this paper is a provably good convex quadratic programming relaxation of strongly polynomial size for this problem. The best previously known approximation algorithms are based on LP relaxations in time- or interval-indexed variables. Those LP relaxations, however, suffer from a huge number of variables. As a result ...

Keywords: approximation algorithms, convex optimization, performance guarantee,

Advanced Search:

INSPEC - 1969 to date (INZZ)

limit

Search history:

No.	Database	Search term	Info added since	Results	
2	INZZ	relaxation AND (round OR rounding) ADJ (up OR down)	unrestricted	9	show titles
3	INZZ	replica ADJ placement	unrestricted	45	show titles
4	INZZ	3 AND relaxation	unrestricted	0	-
5	INZZ	3 AND network	unrestricted	29	show titles
6	INZZ	relaxation	unrestricted	149313	show titles
7	INZZ	6 AND integer ADJ (program OR programming)	unrestricted	911	show titles
8	INZZ	7 AND (network OR mirror OR replica OR node)	unrestricted	251	show titles
9	INZZ	8 AND round	unrestricted	0	-
10	INZZ	8 AND rounding	unrestricted	11	show titles
11	INZZ	(7 AND rounding) NOT 9	unrestricted	41	show titles

[show all](#) | [hide](#) | [delete all search steps...](#) | [delete individual search steps...](#)Enter your search term(s): [Search tips](#) ☐ Thesaurus mapping Information added since: or:

(YYYYMMDD)

search

Select special search terms from the following list(s):

- ☒ Publication year
- ☒ Classification codes A: Physics, 0-1
- ☒ Classification codes A: Physics, 2-3
- ☒ Classification codes A: Physics, 4-5
- ☒ Classification codes A: Physics, 6
- ☒ Classification codes A: Physics, 7
- ☒ Classification codes A: Physics, 8
- ☒ Classification codes A: Physics, 9
- ☒ Classification codes B: Electrical & Electronics, 0-5
- ☒ Classification codes B: Electrical & Electronics, 6-9
- ☒ Classification codes C: Computer & Control

Terms used **relaxation network topology round rounding**

Found **1,338** of **167,655**

Sort results by

relevance

 Save results to a Binder

Try an [Advanced Search](#)

Try this search in [The ACM Guide](#)

Display results

expanded form

 [Search Tips](#)
☐ Open results in a new window

Results 1 - 20 of 200

Result page: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [next](#)

Best 200 shown

Relevance scale ☐ ☐ ☐ ☐ ☐

1 [Design of logical topologies: a linear formulation for wavelength-routed optical networks with no wavelength changers](#)

Rajesh M. Krishnaswamy, Kumar N. Sivarajan

April 2001 **IEEE/ACM Transactions on Networking (TON)**, Volume 9 Issue 2

Publisher: IEEE Press

Full text available:  pdf(257.34 KB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)
Keywords: all-optical networks, linear program, network planning, topology design

2 [Self-stabilizing topology maintenance protocols for high-speed networks](#)

Hosame Abu-Amara, Brian A. Coan, Shlomi Dolev, Arkady Kanevsky, Jennifer L. Welch

December 1996 **IEEE/ACM Transactions on Networking (TON)**, Volume 4 Issue 6

Publisher: IEEE Press

Full text available:  pdf(1.30 MB) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

3 [Routing and wavelength assignment in optical networks](#)

Asuman E. Ozdaglar, Dimitri P. Bertsekas

April 2003 **IEEE/ACM Transactions on Networking (TON)**, Volume 11 Issue 2

Publisher: IEEE Press

Full text available:  pdf(507.86 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

The problem of routing and wavelength assignment (RWA) is critically important for increasing the efficiency of wavelength-routed all-optical networks. Given the physical network structure and the required connections, the RWA problem is to select a suitable path and wavelength among the many possible choices for each connection so that no two paths sharing a link are assigned the same wavelength. In work to date, this problem has been formulated as a difficult integer programming problem that d ...

Keywords: exact penalty functions, lightpath, linear programming, routing, wavelength assignment

4 [Session 1: Self-stabilizing mutual exclusion using tokens in mobile ad hoc networks](#)

 Yu Chen, Jennifer L. Welch

September 2002 **Proceedings of the 6th international workshop on Discrete algorithms and methods for mobile computing and communications**

Publisher: ACM Press

Full text available:  pdf(214.98 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#),